

## PATENT COOPERATION TREATY

PCT

## **NOTIFICATION OF ELECTION**

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C. 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 21 December 1999 (21.12.99)	in its capacity as elected Office
<b>International application No.</b> PCT/US99/06453	<b>Applicant's or agent's file reference</b> 234340
<b>International filing date</b> (day/month/year) 26 March 1999 (26.03.99)	<b>Priority date</b> (day/month/year) 27 March 1998 (27.03.98)
<b>Applicant</b>	
WAGNER, Sigurd	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

20 October 1999 (20.10.99)

in a notice effecting later election filed with the International Bureau on:

2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p><b>The International Bureau of WIPO</b>  <b>34, chemin des Colombettes</b>  <b>1211 Geneva 20, Switzerland</b></p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p><b>Lazar Joseph Panakal</b></p> <p>Telephone No.: (41-22) 338.83.38</p>
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## PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: MICHAEL R. FRISCA  
FRISCA & NUSSBAUM  
ONE UNIVERSITY PLAZA  
HACKENSACK, NJ 07601

PCT

NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

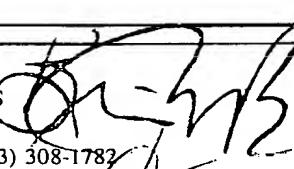
		Date of Mailing (day/month/year)	02 MAR 2000
Applicant's or agent's file reference 234339		IMPORTANT NOTIFICATION	
International application No. PCT/US99/06453	International filing date (day/month/year) 26 MARCH 1999	Priority Date (day/month/year) 27 MARCH 1998	
Applicant TRUSTEES OF PRINCETON UNIVERSITY			

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer RICHARD ELMS 
Facsimile No. (703) 305-3230	Telephone No. (703) 308-1782

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: MICHAEL R. FRISCI  
FRISCI & NUSSBAUM  
ONE UNIVERSITY PLAZA  
HACKENSACK, NJ 07601

**PCT**

## NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year)

**02 MAR 2000**

Applicant's or agent's file reference  234339		IMPORTANT NOTIFICATION	
International application No.  PCT/US99/06453	International filing date (day/month/year)  26 MARCH 1999	Priority Date (day/month/year)  27 MARCH 1998	
<b>Applicant</b> TRUSTEES OF PRINCETON UNIVERSITY			

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
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For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US  Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231  Facsimile No. (703) 305-3230	Authorized officer  RICHARD ELMS  Telephone No. (703) 308-1782
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## PATENT COOPERATION TREATY

## PCT

RECD 07 MAR 2000

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

## (PCT Article 36 and Rule 70)

Applicant's or agent's file reference 234339	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/06453	International filing date (day/month/year) 26 MARCH 1999	Priority date (day/month/year) 27 MARCH 1998
International Patent Classification (IPC) or national classification and IPC IPC(6): HO1L 21/00 and US Cl.: 438/59,60		
Applicant TRUSTEES OF PRINCETON UNIVERSITY		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

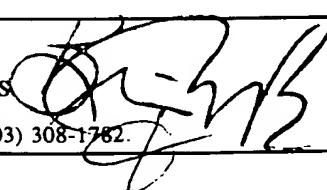
2. This REPORT consists of a total of 3 sheets.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 20 OCTOBER 1999	Date of completion of this report 27 JANUARY 2000
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer RICHARD ELMS Telephone No. (703) 308-1762 

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

**International application No.**

PCT/US99/06453

## I. Basis of the report

1. This report has been drawn on the basis of (Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments):

the international application as originally filed.

the description, pages 1-7, as originally filed.

pages NONE , filed with the demand.

pages NONE , filed with the letter of \_\_\_\_\_.

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

the claims, Nos. 1-22, as originally filed.

Nos. NONE, as amended under Article 19.

Nos. NONE , filed with the demand.

Nos. NONE , filed with the letter of \_\_\_\_\_.

Nos. \_\_\_\_\_, filed with the letter of

the drawings, sheets fig 1-2 , as originally filed.

sheets/fig NONE , filed with the demand.

sheets/fig NONE , filed with the letter of \_\_\_\_\_.

sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

the description, pages NONE

the claims, Nos. NONE

the drawings, sheets/fig NONE

3.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~. Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/06453

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. STATEMENT**

Novelty (N)	Claims	1-22	YES
	Claims	<u>NONE</u>	NO
Inventive Step (IS)	Claims	1-22	YES
	Claims	<u>NONE</u>	NO
Industrial Applicability (IA)	Claims	1-22	YES
	Claims	<u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-22 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest producing thin film active electronics on separate carrier substrates; and combining said substrates using anisotropic conductor or light guides as specified in claim 1. Further: forming at least two active circuits on separate carrier substrates; and combining said active circuits by connecting them with a material which conducts only in one direction as specified in claim 17. Also: depositing a transparent conductor on a transparent substrate; forming a thin film organic light emitting diode on said transparent conductor; forming a thin film transistor circuit and laminating said circuits to each other as specified in claim 18. Also further: forming a first active circuit on a first plane; forming a second active circuit on a second plane; and co-laminating said first and second planes with an anisotropic conductor in between as specified in claim 22.

----- NEW CITATIONS -----  
NONE

## PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: MICHAEL R. FRISCHIA  
FRISCHIA & NUSSBAUM  
ONE UNIVERSITY PLAZA  
HACKENSACK, NJ 07601

RECEIVED

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AUG 16 1999  
SEARCHED  
INDEXED  
D  
B 10/13/99  
 NOT DOCKETED

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

Date of Mailing  
(day/month/year)

13 AUG 1999

Applicant's or agent's file reference 234340	FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US99/06453	International filing date (day/month/year) 26 MARCH 1999
Applicant TRUSTEES OF PRINCETON UNIVERSITY	

1.  The applicant is hereby notified that the international search report has been established and is transmitted herewith.

## Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2.  The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3.  With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Further action(s): The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer MIKE LEBENTRITT Telephone No. (703) 308-1782
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 234340	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US99/06453	International filing date (day/month/year) 26 MARCH 1999	(Earliest) Priority Date (day/month/year) 27 MARCH 1998
Applicant TRUSTEES OF PRINCETON UNIVERSITY		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1.  Certain claims were found unsearchable (See Box I).
2.  Unity of invention is lacking (See Box II).
3.  The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
  - filed with the international application.
  - furnished by the applicant separately from the international application,
    - but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
  - transcribed by this Authority.
4. With regard to the title,  the text is approved as submitted by the applicant.
  - the text has been established by this Authority to read as follows:
5. With regard to the abstract,
  - the text is approved as submitted by the applicant.
  - the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:
  - Figure No. \_\_\_\_\_  as suggested by the applicant.
  - because the applicant failed to suggest a figure.
  - because this figure better characterizes the invention.
  - None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US99/06453

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : HO1L 21/00  
US CL : 438/59,60

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 438/59,60

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,699,073 (Lebby et al) 16 December 1997 (16-12-97), whole document.	1-22
A	US 5,698,452 (GOSSEN) 16 Decmeber 1997 (16-12-97), whole document.	1-22
A	US 5,471,552 (WUU et al) 28 November 1995 (28-11-95), whole document.	1-22
A	US 5,249,245 (LEBBY et al) 28 September 1993 (28-09-93), whole document.	1-22
A	US 4,810,637 (SZYDLO et al) 07 March 1989 (07-03-89), whole document.	1-22
A	US 4,796,975 (LUKAS et al) 10 January 1989, (10-01-89), whole document.	1-22

 Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

07 JULY 1999

Date of mailing of the international search report

13 AUG 1999

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

MIKE LEBENTRITT

Telephone No. (703) 308-1782

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US99/06453

**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,496,743 (LUEYI) 05 March 1996 (05-03-96), whole document.	1-22
A	US 5,049,527 (MERRICK et al) 17 September 1991 (17-09-91), whole document.	1-22